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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/740,482	12/22/2003	Pierre Pare	15352-1US SC/ip	2066

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EXAMINER

MAYO, TARA L

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/740,482

Applicant(s)

PARE, PIERRE

Examiner

Tara L. Mayo

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 15, 16, 18-24 and 27 is/are rejected.
- 7) ☒ Claim(s) 6-14, 17, 25 and 26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20040520</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 22, B3, B4 and 54. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: SO and S4 of Figure 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be

Art Unit: 3671

labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 3 is objected to because of the following informalities: minor claim drafting error. On line 4, delete "speed" and insert therefor --pressure-- or make an equivalent change thereto. See the Specification at paragraph 00044. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1 through 5 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by Moschetti (U.S. Patent No. 4,178,875).

Moschetti '875, as seen in Figure 1, shows a device for lining a conduit (1) to be rehabilitated, comprising
with regard to claim 1,

Art Unit: 3671

a movable carriage (3) having an axis, said carriage being adapted to enter and be displaced coaxially through the conduit, and a spray source rotatably mounted to said carriage for rotation about said axis, said spray source including a nozzle through which a fast setting lining mixture (col. 2, lines 59 through 61) is forced out under pressure while said spray source is rotated about said axis and said carriage is axially displaced along the conduit, thereby providing for a uniform distribution of the lining mixture on an inner wall of the conduit, and wherein at least first and second fluid passages (10; col. 3, lines 15 through 18) are provided for separately feeding first and second components of the fast setting lining mixture to the spray source where the first and second components are mixed together (col. 4, lines 23 through 26) as the lining mixture is being supplied;

with regard to claim 2,

wherein said spray source includes a rotatable crank axle (5), said nozzle being mounted at a distal end of said crank axle for rotation about said axis;

with regard to claim 3,

wherein said nozzle is in fluid flow communication with a mixing chamber (i.e., the interior portion of the nozzle where the components are mixed) in which the components of the lining mixture are mixed before being discharge at high speed through a slotted orifice defined in said nozzle at an angle (as indicated by the spray pattern in Figure 3) with respect to a central axis of said mixing chamber;

with regard to claim 4,

wherein said nozzle defines an inclined and outwardly flaring slotted spray orifice (as indicated by the spray pattern in Figure 3);

Art Unit: 3671

with regard to claim 5,

wherein said nozzle is orientable to selectively spray radially inwardly and radially outwardly relative to said axis; and

with regard to claim 16,

wherein said carriage equipped with a set of rollers (4a, 4b) for centering said carriage in the conduit to be rehabilitated.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 15, 24 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moschetti (U.S. Patent No. 4,178,875) in view of Jönsson (U.S. Patent No. 6,439,479 B1).

Moschetti '875 further discloses
with regard to claim 15,

the spray source including an arm (5) extending in parallel to said axis and mounted for rotation thereabout and a head (i.e., the end of the arm) carrying the nozzle.

Art Unit: 3671

Moschetti '875 teaches all of the features of the claimed invention with the exception(s) of:

with regard to claim 15,

the head being displaceable by an actuator for selectively closing and opening the spray source, the actuator extending along the arm, and the head being displaceable in a direction perpendicular to the arm;

with regard to claim 24,

a linear actuator extending along the elongated body for displacing the head in a direction perpendicular to the elongated body between a closed position, wherein the components of the fast setting lining material are prevented from reaching the mixing chamber, and an open position wherein the components of the fast setting material are free to flow into the mixing chamber; and

with regard to claim 27,

the head moving up and down a needle valve extending at right angle from the elongated body.

Jönsson '479 discloses a spray gun comprising a linear actuator for selectively closing and opening a spray source, the actuator extending along the arm (col. 1, lines 9 through 20; and col. 2, lines 48 through 54) to prevent clogging of the orifices.

With regard to claims 15, 24 and 27, it would have been obvious to one having ordinary skill in the art of spraying at the time the invention was made to modify the device shown by Moschetti '875 such that it would include a linear actuator as taught

Art Unit: 3671

by Jönsson '479. The motivation would have been to prevent clogging of the nozzle. With regard to Applicant's recitation of perpendicular displacement, as the nozzle of the device shown by Moschetti '875 is positioned perpendicularly to the rotatable arm, modification to include an actuator as taught by Jönsson '479 would necessarily require the resulting motion to also be perpendicular.

8. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moschetti (U.S. Patent No. 4,178,875) in view of Finn (U.S. Patent No. 5,462,204).

Moschetti '875 teaches all of the features of the claimed invention with the exception(s) of:

with regard to claim 18,

a pressure loss regulator being provided adjacent the mixing chamber to ensure that the components of the lining mixture are supplied to the mixing chamber at substantially the same pressure.

Finn '204, as seen in Figures 2 and 4, shows an apparatus for dispensing a foam composition comprising a nozzle (65) having a hollow interior that defines a mixing chamber (66) and an outlet (67), wherein a pressure loss regulator (31) is provided in first and second fluid passages (12, 13) leading to the mixing chamber. to ensure that the fluid components of the lining mixture are supplied to the mixing chamber at substantially the same pressure.

Art Unit: 3671

With regard to claim 18, it would have been obvious to one having ordinary skill in the art of spraying at the time of invention to modify the device shown by Moschetti '875 such that it would include at least one pressure loss regulator. The motivation would have been to regulate the pressures at which the first and second fluids enter the mixing chamber from their individual sources.

9. Claims 19 through 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moschetti (U.S. Patent No. 4,178,875) in view of Bleggi (U.S. Patent No. 6,632,475 B1).

With regard to claim 19, all of the method steps and structural limitations recited therein are inherent to the use of the device shown by Moschetti '875 with the exception(s) of:

with regard to claim 19,

spraying at least a first layer of the liner in a helical pattern on the inner wall of the conduit;

with regard to claim 20,

the lining material being sprayed such that each spire of sprayed lining material overlaps a preceding spire;

with regard to claim 21,

further including the step of applying a second layer of lining material onto the first layer in opposed development;

with regard to claim 22,

Art Unit: 3671

the step of applying the second layer comprising the step of inverting the direction of the rotation of spray source; and
with regard to claim 23,

further comprising the step of selecting the number of layers to be applied onto the inner wall of the conduit and alternating the direction of rotation of the spray source between the application of each layer.

Bleggi '475, as seen in Figure 6, discloses a device for spraying a multi-component coating on the interior of a pipe in a helical spray pattern (Claim 1) while the device is advancing along the length of the pipe.

With regard to claim 19, it would have been obvious to one having ordinary skill in the art of coating at the time of invention to modify the method disclosed by Moschetti '875 such that it would include the step of spraying at least a first layer of the lining in a helical pattern as claimed by Bleggi '475. The motivation would have been to apply the lining mixture to a relatively large surface area of the conduit in a continuous manner.

With regard to claim 20, in view of the teaching by Bleggi '475 for spraying lining material in a helical pattern, it would have been obvious to one having ordinary skill in the art of coating at the time of invention to modify the method disclosed by Moschetti '875 such that it would include the step of applying the lining material in a helical pattern such that one spire would overlap another. The motivation would have been to effectively coat the entire interior of the conduit in a continuous manner.

Art Unit: 3671

With regard to claims 21 through 23, it has been held that mere duplication of the essential working parts of a device involves only routing skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Therefore, it would have been obvious to one having ordinary skill in the art of coating at the time of invention to modify the claimed method such that the steps recited therein would be repeated as necessary to apply multiple layers of coating to the interior of the conduit as desired.

Allowable Subject Matter

10. Claims 6 through 14, 17, 25 and 26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

11. As allowable subject matter has been indicated, applicant's reply must either comply with all formal requirements or specifically traverse each requirement not complied with. See 37 CFR 1.111(b) and MPEP § 707.07(a).

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-

Art Unit: 3671

3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



TLM

22 August 2004



Thomas B. Will
Supervisory Patent Examiner
Group 3600